



# STUDIES

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## MATERNAL OBESITY AND EXCESS RISK OF PERINATAL MORTALITY: EVIDENCE FROM A LARGE BIRACIAL POPULATION

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### ABSTRACT

To investigate the risk of perinatal death associated with maternal obesity, a cohort of low-income women who participated in the North Carolina WIC program during 1988-90 was evaluated retrospectively. Blacks (N=45,651) and Whites (N=40,929) were considered separately. Perinatal mortality rate ratios for moderate overweight and obesity were calculated using normal weight women as the referent group. A logistic regression analysis provided adjusted estimates of the relative risks of perinatal mortality associated with maternal overweight and obesity.

Maternal obesity was associated with an excess risk of perinatal death among both Blacks (RR=1.3) and Whites (RR=1.5), after adjustment for maternal age, education, parity, cigarette smoking, gestational weight gain, diabetes and hypertension. There was no overall elevated risk of perinatal death among infants of moderately overweight women for either Blacks or Whites. For both race groups, stronger associations of maternal obesity with perinatal mortality were observed among women less than 18 years old, women 35 years or older, and women with adequate or excessive gestational weight gain.

The results of this study confirm that obesity is a major risk factor for perinatal mortality, not solely due to risk factors associated with obesity, such as diabetes and hypertension. The high prevalence of obesity among low-income women, which leads to high rates of chronic disease in later life, adversely affects reproductive outcomes as well.

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